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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,096	09/10/2003	Yoshiro Udagawa	B588-655 (25815.671)	5924

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COWAN LIEBOWITZ & LATMAN P.C.
JOHN J TORRENTE
1133 AVE OF THE AMERICAS
NEW YORK, NY 10036

EXAMINER
LAM, HUNG H

ART UNIT	PAPER NUMBER
2622	

MAIL DATE	DELIVERY MODE
06/10/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/660,096	UDAGAWA, YOSHIRO	
	Examiner	Art Unit	
	HUNG H. LAM	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05/05/09*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/05/09 has been entered.

Response to Amendment

2. The amendments, filed on 05/05/09, have been entered and made of record. Claims 1-19 are pending.

Response to Arguments

3. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 3-8, 10-12, 14-16, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuda (US-2005/0,225,662) and further in view of Sato (US-6,839,087).

With regarding **claim 1**, Tsuda discloses an image sensing apparatus having at least a filter insertion/removal device which is operated by a user and inserts and removes an optical filter for reducing a light quantity to an image sensing element serving as an optical system (abstract), comprising:

a signal processing device (Fig. 1; IRIS driver 509) which performs signal processing so as to generate image data from an image sensing signal output from the image sensing element (Fig. 1; step 512-513, 515 and 509; the IRIS driver 509 receives/ processes the input signal from high speed or low speed control mode part 512-513 so as to generate an image with adequate luminance. Thus IRIS driver 509 is broadly interpreted as a signal processing device);

a brightness value calculation device which calculates a first brightness value representing a brightness of part or all of an object which is imaged on the image

sensing element (luminance signal detecting circuit 507 and IRIS control signal computing circuit 511; [0101-0103; 0110]);

Tsuda first brightness value is obtain on the basis of a light reduction amount generated by inserting the optical filter by the filter insertion/removal device (Fig. 1; luminance signal detecting circuit and iris control signal are inherently computed on the basis of ND-filter on/off; [0099]).

However, Tsuda fails to explicitly disclose a brightness value correction device which calculates a second brightness value by correcting the first brightness value; and a control device which controls the signal processing in said signal processing device by using the second brightness value.

In the same field of endeavor, Sato teaches a camera system calculates and/or performs a first and second exposure time (Fig. 2; Steps S102-S110) wherein in an exposure calculation, aperture size of iris diaphragm 16 and a first exposure time are calculated in accordance with photo metering value (Col. 5, Ln. 26-45). According to Sato, average brightness values of all pixels of CCD are calculated and subsequently multiply by 2N. An Exposure compensation factor is calculated by dividing predetermined proper value by the average of all brightness value. Further more, a main exposure is performed at a third exposure time that calculated by multiplying first exposure time by exposure compensation factor (Fig. 3; see step S110-S113; Col. 5, Ln. 27-Col. 6, Ln. 52). Sato further teaches that the invention thus make it possible to reduce the time lag between the pre-exposure and the main exposure (Col. 7, Ln. 35-46; Col. 1, Ln. 38-43). In light of the teaching from Sato, it would have been obvious to

one of ordinary skill in the art at the time the invention was made to modify the device of Tsuda to manipulate an average brightness values of al pixels of a CCD in order to calculate Exposure compensation factor and third exposure time. The modifications thus make it possible to reduce the time lag between the pre-exposure and the main exposure (Sato: Col. 7, Ln. 35-46; Col. 1, Ln. 38-43).

With regarding **claim 3**, Tsuda discloses an image sensing apparatus having at least a filter insertion/removal device which is operated by a user and inserts and removes an optical filter for reducing a light quantity to an image sensing element serving as an optical system (abstract), comprising:

a signal processing device (Fig. 1; IRIS driver 509) which performs signal processing so as to generate image data from an image sensing signal output from the image sensing element (Fig. 1; step 512-513, 515 and 509; the IRIS driver 509 receives/ processes the input signal from high speed or low speed control mode part 512-513 so as to generate an image with adequate luminance. Thus IRIS driver 509 is broadly interpreted as a signal processing device);

a brightness value calculation device which calculates a first brightness value representing a brightness of part or all of an object which is imaged on the image sensing element (luminance signal detecting circuit 507 and IRIS control signal computing circuit 511; [0101-0103; 0110]);

Tsuda first brightness value is obtain on the basis of a light reduction amount generated by inserting the optical filter by the filter insertion/removal device (Fig. 1;

luminance signal detecting circuit and iris control signal are inherently computed on the basis of ND-filter on/off; [0099]).

However, Tsuda fails to explicitly disclose a brightness value correction device which calculates a second brightness value by correcting the first brightness value; and a control device which controls the signal processing in said signal processing device by using the second brightness value.

In the same field of endeavor, Sato teaches a camera system calculates and/or performs a first and second exposure time (Fig. 2; Steps S102-S110) wherein in an exposure calculation, aperture size of iris diaphragm 16 and a first exposure time are calculated in accordance with photo metering value (Col. 5, Ln. 26-45). According to Sato, average brightness values of all pixels of CCD are calculated and subsequently multiply by 2N. An Exposure compensation factor is calculated by dividing predetermined proper value by the average of all brightness value. Further more, a main exposure is performed at a third exposure time that calculated by multiplying first exposure time by exposure compensation factor (Fig. 3; see step S110-S113; Col. 5, Ln. 27-Col. 6, Ln. 52). Sato further teaches that the invention thus make it possible to reduce the time lag between the pre-exposure and the main exposure (Col. 7, Ln. 35-46; Col. 1, Ln. 38-43). In light of the teaching from Sato, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Tsuda to manipulate an average brightness values of al pixels of a CCD in order to calculate Exposure compensation factor and third exposure time. The modifications

thus make it possible to reduce the time lag between the pre-exposure and the main exposure (Sato: Col. 7, Ln. 35-46; Col. 1, Ln. 38-43).

With regarding **claim 4**, Tsuda discloses the apparatus according to claim 3, wherein said control of the optical system includes control of an exposure value to the image sensing element (0103).

With regarding **claim 5**, Tsuda discloses the apparatus according to claim 4, wherein the optical system further comprises an aperture device (Fig. 1; Iris 503) which changes an aperture diameter, and control of the exposure value includes control of the aperture diameter of the aperture device (0103; 0108-0109).

With regarding **claim 6**, Tsuda discloses the apparatus according to claim 1, wherein the optical filter includes an ND filter (Fig. 1; ND filter 502).

With regarding **claim 7**, Tsuda discloses the apparatus according to claim 1, wherein said brightness value calculation device calculates the first brightness value on the basis of an aperture value determined in accordance with an aperture diameter of an aperture device, a time value determined in accordance with a time during which an object image is formed on the image sensing element (0101-0108: it is inherent that Iris Low-Speed Control signal is calculated on the basic of Iris Open and/or Close direction and Speed), and a sensitivity of the image sensing element (0013: Tsuda further

suggested to increase sensitivity of the image pickup when luminance/brightness is low).

With regarding **claim 8**, Tsuda discloses an image sensing method using an image sensing apparatus having at least a filter insertion/removal device which inserts and removes an optical filter for reducing a light quantity to an image sensing element serving as an optical system (abstract), comprising:

a first step of calculating a first brightness value representing a brightness of part or all of an object which is imaged on the image sensing element (luminance signal detecting circuit 507 and IRIS control signal computing circuit 511; [0101-0103; 0110]);

a step of correcting the first brightness value calculated in the first step on the basis of a light reduction amount generated by inserting the optical filter by the filter insertion/removal device Fig. 1; luminance signal detecting circuit and iris control signal are inherently computed on the basis of ND-filter on/off; [0099]).

a third step of controlling, signal processing of generating image data from an image sensing signal output from the image sensing element (Fig. 1; step 512-513, 515 and 509; the IRIS driver 509 receives/ processes the input signal from high speed or low speed control mode part 512-513 so as to generate an image with adequate luminance. Thus IRIS driver 509 is broadly interpreted as a signal processing device).

However, Tsuda fails to explicitly disclose a second step of calculating a second brightness value by correcting the first brightness value calculated in the first step; and

a third step of controlling, by using the second brightness value calculated in the second step, signal processing of generating image data from an image sensing signal output from the image sensing element

In the same field of endeavor, Sato teaches a camera system calculates and/or performs a first and second exposure time (Fig. 2; Steps S102-S110) wherein in an exposure calculation, aperture size of iris diaphragm 16 and a first exposure time are calculated in accordance with photo metering value (Col. 5, Ln. 26-45). According to Sato, average brightness values of all pixels of CCD are calculated and subsequently multiply by 2N. An Exposure compensation factor is calculated by dividing predetermined proper value by the average of all brightness value. Further more, a main exposure is performed at a third exposure time that calculated by multiplying first exposure time by exposure compensation factor (Fig. 3; see step S110-S113; Col. 5, Ln. 27-Col. 6, Ln. 52). Sato further teaches that the invention thus make it possible to reduce the time lag between the pre-exposure and the main exposure (Col. 7, Ln. 35-46; Col. 1, Ln. 38-43). In light of the teaching from Sato, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Tsuda to manipulate an average brightness values of al pixels of a CCD in order to calculate Exposure compensation factor and third exposure time. The modifications thus make it possible to reduce the time lag between the pre-exposure and the main exposure (Sato: Col. 7, Ln. 35-46; Col. 1, Ln. 38-43).

With regarding **claim 10**, the claim is a method claim of an apparatus claim 3. Therefore, claim 10 is analyzed and rejected as discussed in claim 3.

With regarding **claim 11**, the claim is a method claim of an apparatus claim 4. Therefore, claim 11 is analyzed and rejected as discussed in claim 4.

With regarding **claim 12**, the claim contains the same limitations as claimed in 8. Therefore, claim 12 is analyzed and rejected as discussed in claim 8.

With regarding **claim 14**, the claim contains the same limitations as claimed in claim 3. Therefore, claim 14 is analyzed and rejected as discussed in claim 3.

With regarding **claim 15**, the claim contains the same limitations as claimed in claim 4. Therefore, claim 15 is analyzed and rejected as discussed in claim 4.

With regarding **claim 16**, the claim contains the same limitations as claimed in 8. Therefore, claim 16 is analyzed and rejected as discussed in claim 8.

With regarding **claim 18**, the claim contains the same limitations as claimed in claim 3. Therefore, claim 18 is analyzed and rejected as discussed in claim 3.

With regarding **claim 19**, the claim contains the same limitations as claimed in claim 4. Therefore, claim 19 is analyzed and rejected as discussed in claim 4.

4. Claims 2 ,9, 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuda in view of Sato and further in view of Kenmochi (US-5,900,947).

With regarding **claim 2**, Tsuda in view of Sato fails to disclose the apparatus according to claim 1, wherein said control of the signal processing includes control of white balance processing.

In the same field of endeavor, Kenmochi teaches a camera system wherein the camera CPU 901 the camera entirely generated instructions to control the focus, zoom, iris, and white balance through the camera control unit 910 (Col. 11, Ln. 12-20). In light of the teaching from Kenmochi, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Tsuda and Sato to include a white balance control function/step. The modification thus provides a more versatile camera system.

With regarding **claim 9**, Tsuda in view of Sato fails to disclose the method according to claim 8, wherein control of the signal processing in the third step includes control of white balance processing.

In the same field of endeavor, Kenmochi teaches a camera system wherein the camera CPU 901 the camera entirely generated instructions to control the focus, zoom, iris, and white balance through the camera control unit 910 (Col. 11, Ln. 12-20). In light of the teaching from Kenmochi, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Tsuda and Sato to include a white balance control function/step. The modification thus provides a more versatile camera system.

With regarding **claim 13**, the claim contains the same limitations as claimed in 9. Therefore, claim 13 is analyzed and rejected as discussed in claim 9.

With regarding **claim 17**, the claim contains the same limitations as claimed in 9. Therefore, claim 17 is analyzed and rejected as discussed in claim 9.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG H. LAM whose telephone number is (571)272-7367. The examiner can normally be reached on Monday - Friday 8AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SINH TRAN can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HL
06/06/09

/Sinh Tran/
Supervisory Patent Examiner, Art Unit 2622